

April 9, 2015

Kristine Koch U.S. Environmental Protection Agency, Region 10 1200 Sixth Avenue, Suite 900, M/S ECL-115 Seattle, WA 98101

Re: Lower Willamette River, Portland Harbor Superfund Site USEPA Docket No: CERCLA-10-2001-0240 Monthly Progress Report for March 2015

Dear Ms. Koch:

This monthly status report provides information required by the Portland Harbor Superfund Site Administrative Settlement and Administrative Order on Consent (ASOC).

1. ACTIONS TAKEN IN MARCH 2015

None.

Deliverables Approved by EPA

None.

Deliverables Submitted to EPA and Other Actions

- On March 6, 2015, at EPA's request, the LWG provided EPA draft maps with core profiles showing depth of impact for Total polycyclic aromatic hydrocarbons (PAHs) and DDx. On March 6, 2015, the LWG provided EPA maps showing the cores with dioxin/furan data in the Sediment Decision Units (SDUs) where dioxin/furans are listed as a primary contaminant of concern (COC) in the March 27, 2014 table provided by EPA.
- On March 6, 2015, the LWG provided EPA a letter regarding the background values presented in EPA's draft Feasibility Study (FS) Section 2.
- On March 9, 2015, a meeting was held with the LWG and EPA Senior Managers.
- On March 10, 2015, the LWG provided EPA comments regarding the Oregon Department of Environmental Quality (DEQ) Source Control Summary Report consistency with EPA's draft FS Section 1 groundwater and riverbank source text.
- On March 11, 2015, a risk communications meeting was held with the LWG, EPA, and Oregon Department of Health communications staff.
- On March 12, 2015, an FS technical call was held with EPA and its partners to discuss dioxin/furan RALs.
- On March 13, 2015, the LWG requested GIS files related to EPA's dioxin/furan analysis.



- On March 17, 2015, an FS technical meeting was held with EPA and its partners to discuss the LWG's comments on EPA's draft FS Section 2.
- On March 19, 2015, a call was held with DEQ to answer questions about what information was used to create the revised comprehensive benthic risk areas (April 2014) footprint.
- On March 25, 2015, the LWG provided comments on EPA's FS revised draft Section 2.
- On March 26, 2015, the LWG provided EPA a copy of the LWG's November 5, 2014 Hardness-based Mn Criterion Memorandum and a summary of the LWG's information presented in that memorandum.
- On March 30, 2015, the LWG sent an email to EPA to clarify the number of other contaminants for which the EPA RI Section 7 dispute decision directs the LWG to calculate background values. Based on written feedback from Kristine Koch, Rick Albright's March 24, 2015 dispute decision is to be interpreted as referencing the 18 contaminants presented in Appendix D to the RI Section 5.

Comments/Documents Provided by EPA

- On March 2, 2015, EPA provided an additional erratum for the FS Section 2.
- On March 4, 2015, EPA provided the LWG a written summary of EPA staff roles and responsibilities.
- On March 5, 2015, EPA informed the LWG that the version of the Applicable or Relevant and Appropriate Requirement (ARAR) table that was provided to the LWG on February 23, 2015, did not include the latest information regarding action-specific ARARs. EPA provided a redline table that reflects the state ARARs related to removal/fill statute and regulations.
- On March 6, 2015, EPA provided the PeCDD remedial action level (RAL) curve developed by CDM Smith for EPA and the map of the areas exceeding the RALs for PeCDD, PeCDF, and TCDD. On March 10, 2015, the LWG informed EPA it provided the wrong RAL curve for PeCDD, and EPA responded later that day with revised dioxin/furan RALs (including the correct PeCDD RAL curve).
- On March 10, 2015, EPA provided additional rationale for the map of remediation areas presented in EPA's revised draft FS Section 2.
- On March 13, 2015, EPA informed the LWG that they are only using 3 dioxin/furans RALs and propose dropping the other two (HxCDF and TCDF) and Total dioxin/furan. EPA will provide the LWG the geodatabase or layer packages.
- On March 19, 2015, EPA provided the LWG a letter in response to the LWG's February 12, 2015, and March 10, 2015 comments regarding EPA's draft Section 1 of the FS.
- On March 19, 2015, EPA provided the LWG a letter in response to the LWG's February 12, 2015 comments on EPA's draft revisions to the Executive Summary to the Remedial Investigation (RI).
- On March 19, 2015, EPA provided the LWG excerpts from the National Remedy Review Board guidance.



- On March 20, 2015, EPA provided the LWG additional redline text for the RI Section 10 conceptual site model, specific to the uncertainties associated with the risk assessments.
- On March 20, 2015, EPA requested a meeting be scheduled to discuss EPA's comments on the Bioaccumulation Modeling Report.
- On March 24, 2015, EPA provided the decision on August 26, 2014, dispute regarding background for the RI Section 7.
- On March 31, 2015, EPA clarified the contaminants that the LWG needs to compute background for the RI in Appendix H based on Rick Albright's dispute decision.
- On March 31, 2015, EPA provided a copy of a January 5, 2015 email from Elizabeth Allen to Rick Albright in response to the LWG's request for a copy of the January 22, 2015 "Outlier Test for OCB Congeners" cited in Rick Albright's RI Section 7 dispute decision.

2. PROBLEMS ENCOUNTERED, ANTICIPATED DELAYS, AND SOLUTIONS

None.

3. RESULTS OF SAMPLING, TESTS, AND OTHER DATA RECEIVED

• None.

4. SCHEDULE FOR THE NEXT FOUR MONTHS

The LWG project team will continue to coordinate with the EPA Remedial Project Managers to schedule focused technical FS subgroup meetings with representatives from the respective EPA and LWG teams, consistent with the December 19, 2014 FS revision process agreement.

The EPA and LWG technical teams will utilize Rick Albright's decision on the RI Section 7 dispute to resume discussions to finalize the RI and incorporate the background sediment information into the revised FS.

Work covered by the ASOC that is currently planned for April, May, June, and July 2015 includes the following:

- On May 18, 2015, a draft FS Section 3 is expected from EPA for LWG review.
- On July 16, 2015, a draft FS Section 4 and Executive Summary is expected from EPA for LWG review.

Submittal dates for pending documents currently under preparation by the LWG and scheduled for submittal in upcoming months are listed in Table 1: Status of Active LWG Deliverables—Portland Harbor RI/FS. This table includes pending and recently submitted deliverables for which EPA comments or approvals are required. Table 2: Status of LWG Deliverables—Portland Harbor RI/FS reflects the more complete list of LWG submittals and is equivalent to the former Table 1 provided in previous progress reports.



5. DOCUMENTS AND ISSUES AWAITING EPA RESPONSE

EPA comments or approvals have not been received on a number of documents that have been submitted to EPA as required by the ASOC; these submittals are listed in Tables 1 and 2. The LWG requests that EPA provide document approvals for these submittals to verify that the terms of the ASOC are being met and issues are resolved to maintain progress on the RI/FS. Also, the LWG believes that many of the documents listed as future submittals in Table 2 are no longer needed (see Status/Comments column) and requests that EPA review the list and confirm that these documents are, indeed, not needed.

If you have any questions, please give me a call at (503) 972-5014.

Sincerely,

Jennifer Woronets

LWG Administrative Project Coordinator

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LWG Management

LWG Repository



Table 1. Status of Active LWG Deliverables – Portland Harbor RI/FS.

Deliverable ¹	Submittal Deadline ²	Status/Comments	EPA Comments Target Date
None.			

Notes:

- ¹ Bolded Deliverables are primary deliverables per Section XIX, Paragraph 4 of ASOC (EPA 2001a). Unbolded Deliverables are secondary deliverables per Section XIX, Paragraph 5 of ASOC. *Italicized Deliverables* do not have stipulated penalty amounts.
- ² Listed Submittal Deadlines are for draft documents. Unless otherwise specified, all final documents are due to EPA 30 days following receipt of comments from EPA.

Deliverable completed and approved by EPA.

Deliverable submitted to EPA and its partners.

Underlining indicates text change from last progress report.



Table 2. Status of LWG Deliverables – Portland Harbor RI/FS.

	Submittal		EPA Comments
Deliverable ¹	Deadline ²	Status/ Comments	Target Date
Round 1			
Compilation of Information for Sources Between RM 11 and 11.6 East Bank of Portland Harbor	November 2007	Submitted to EPA and DEQ 11/21/2007. Need written response from DEQ and EPA that upland sources are under investigation consistent with the Road to the ROD.	
Round 2 Biota			
Revised Round 2 QAPP Addendum 6: Sampling of Benthic Invertebrate Tissue	11/23/2005	Submitted 11/23/2005; approved with conditions on 12/6/2005; a final QAPP addendum is required	12/8/2005
Final Round 2 QAPP Addendum 6: Sampling of Benthic Invertebrate Tissue	TBD	On 2/9/2006, the LWG submitted a response to EPA's comments on the 11/23/2005 version of the QAPP addendum. The LWG has not heard back from EPA on that response. The LWG believes that a final QAPP in not required. Need EPA agreement that this final QAPP is not required.	
Hydro/Sed Modeling			
Phase 2 Hydrodynamic Re-calibration Report	May 2009	Submitted 5/7/2009; EPA comments received 7/22/2009	
Groundwater Pathway			
Draft Round 2 Groundwater Pathway Assessment Sampling and Analysis Plan	4/22/2005	Submitted 4/22/2005; EPA comments received 6/3/2005	
Round 2 Groundwater Pathway Assessment Sampling and Analysis Plan - Response to EPA Comments	TBD	Outstanding issues to be addressed in GW Appendix to Draft RI Report.	
Revised Round 2 Groundwater Pathway Assessment Sampling and Analysis Plan (including Appendix A - Site Summaries and Appendix B - Pilot Study Data Report)	TBD	Outstanding issues to be addressed in GW Appendix to Draft RI Report.	
Round 2 FSP for Sampling of Shoreline Seeps at Human Use Beaches	4/29/2005	Submitted 4/29/2005; EPA comments received 6/10/2005	



	Submittal		EPA Comments
Deliverable ¹	Deadline ²	Status/ Comments	Target Date
Revised Round 2 FSP for Sampling of Shoreline Seeps at Human Use Beaches	No longer needed	The only seep determined to pose a potentially complete exposure pathway is discharge from Outfall 22B. The existing data from Outfall 22B include the upland COIs and meet the data quality requirements for risk evaluation (Category 1/QA2). Based on the Round 2 Report evaluations, no additional seep data are needed. Therefore, this FSP is no longer needed.	
Revised Round 2 Groundwater Pathway Assessment SAP Attachment 2: Transition Zone Water FSP	3/27/2006	Redline version submitted 3/27/2006; EPA needs to provide final approval of this FSP. This revised FSP was prepared and submitted after the associated field work was completed.	4/28/2006
Revised Round 2 Groundwater Pathway Assessment SAP Attachment 3: Supplement to QAPP Addendum 3	10/7/2005	Submitted 10/7/2005: Conditional approval of proposed changes to the QAPP addendum received from EPA on 9/30/2005. EPA needs to provide final approval of this QAPP. Approval to conduct sampling was provided by EPA on 9/30/2005.	
Revised Transition-Zone Water FSP Addendum 1 Sampling Plans for ExxonMobil, Siltronic, Gasco, and Arkema	3/27/2006	Submitted 3/27/2006. EPA needs to provide final approval of this FSP. Approval to conduct sampling was provided by EPA on 9/30/2005. This revised FSP was prepared and submitted after the associated field work was completed.	
Revised Transition-Zone Water FSP Addendum 2	3/27/2006	Submitted 3/27/2006. EPA needs to provide final approval of this FSP. Approval to conduct sampling was provided by EPA on 10/13/2005. This revised FSP was prepared and submitted after the associated field work was completed.	
Natural Attenuation			
Step 2 Natural Attenuation Evaluation Report	No longer needed		
Tech Memos			ı
Revised TRV Selection TM	10/23/2004	Submitted; EPA comments received 3/18/2005. On 6/10/2005, EPA directed the LWG to submit the final TRV Selection TM with the PRE. The final TRV Selection TM was submitted as an appendix to the 9/9/2005 PRE.	



	Submittal		EPA Comments
Deliverable ¹	Deadline ²	Status/ Comments	Target Date
Second Revision Preliminary Risk Evaluation Approach TM	1/7/2005	Submitted; EPA comments received 3/4/2005. On 6/10/2005, EPA directed the LWG to submit the final PRE approach TM with the PRE. The final PRE Approach was submitted as an appendix to the 9/9/2005 PRE.	
Comprehensive ERA Approach TM	6/27/2004	Submitted; EPA comments received 10/1/2004	
Revised Comprehensive ERA Approach TM	TBD	In a 1/11/2006 meeting with EPA, the LWG proposed deleting this deliverable. The LWG has not heard back from EPA on this proposal. Need EPA agreement that this deliverable is no longer needed.	
Process for Derivation of PRGs TM	1/20/2005	Submitted; EPA comments received 6/30/2006; a revised tech memo is not required.	3/21/2005
Draft Approach to Determining Background for the Portland Harbor Superfund Site	3/3/2006	Submitted 3/3/2006; EPA comments received 6/5/2006; revised tech memo required.	5/2/2006
Revised Approach to Determining Background for the Portland Harbor Superfund Site	7/20/2006	The revised approach to determining background for the Portland Harbor Superfund Site will be provided in the Draft RI Report	
Process for Delineating the Extent of Contamination Upstream and Downstream of the ISA		The approach for Delineating the Extent of Contamination Upstream and Downstream of the ISA will be provided in the Draft RI Report	
COPC Selection Interim Deliverable	~1/23/2006	In a 1/11/2006 meeting with EPA, the LWG proposed deleting this deliverable. The LWG has not heard back from EPA on this proposal. Need EPA agreement that this deliverable is no longer needed.	
ECOLOGICAL RISK ASS	ESSMENT		
Ecological Preliminary Risk Evaluation (PRE)	9/9/2005	Submitted 9/9/2005; EPA comments received 4/28/2006, a revised PRE is not required	11/8/2005
Round 2 Benthic Assessment Interpretation Report	3/17/2006	Submitted 3/17/2006; EPA comments received 7/6/2006	5/16/2006
Food Web Modeling Report: Evaluating Trophic Trace and the Arnot and Gobas Models for Application to the	11/4/2005	Submitted 11/4/2005; EPA comments received 3/10/2006	1/3/2006



	Submittal		EPA Comments
Deliverable ¹	Deadline ²	Status/ Comments	Target Date
Portland Harbor			
Superfund Site			
Revised Ecological Water	5/26/2006	Submitted 5/25/2006; directive EPA	7/9/2006
Screening Levels		comments received 9/15/2006, and a	
		correction to the xylene AWQC on	
		9/27/06. Additional revisions were	
D 0.01		submitted on 10/13/2006.	
Feasibility Study	T		
Literature Survey of	October 2007	Submitted 10/31/2007. EPA comments	Jan-08
Treatability Studies		received 2/15/08. A revised deliverable is	
		not required, EPA comments indicated that	
D 1 2D (EC) C: 1	Cantaushan	they should be addressed in the FS. Submitted 5/18/2009	
Round 3B (FS) Side-scan Sonar Data Report	September 2008	Submitted 3/18/2009	
Treatment Technologies	Early May	Submitted 6/5/2009; EPA comments	7/6/2009
Screening Table	2009	received 7/9/2009	1/0/2009
Screening of Disposal	Mid May	Submitted 6/18/2009; EPA comments	7/2/2009
Facilities for the	2009	received 7/10/2009	11212007
Feasibility Study	2007	10001100 // 10/2009	
Memorandum			
Early Preliminary	Late March	Submitted 3/27/2009	
Remediation Goals (PRGs)	2009		
Benthic Toxicity AOPCs	September	Submitted 9/07/2010	
Check In Materials	2010		
Treatment Technology	_	Submitted 03/15/2011; EPA comments	
Evaluation Tools Memo	_	received 4/27/2011	
Draft Mitigation	_	Submitted 03/15/2011; EPA comments	
Determination Approach		received 4/27/2011	
for Use in the FS Tools			
Memo		G 1 100/15/0015 TT	
Draft Feasibility Study	-	Submitted 03/15/2011; EPA comments	
Costing Approach Tools		received 4/27/2011	
Memo Duaft Identification of		Submitted 02/16/2011: EDA comments	
Draft Identification of "COCs" and Contaminant	-	Submitted 03/16/2011; EPA comments received 4/27/2011	
Mobility Evaluation		10001700 4/2//2011	
Criteria For the Draft FS			
Tools Memo			
Dredging Water Quality		Submitted 03/31/2011; EPA comments	
Evaluation Tools Memo	-	received 4/27/2011	
Alternatives Screening		Submitted 04/06/2011	
Materials			
Draft FS Key Elements	_	Submitted Materials 06/06/2011	
Presentation		Presentation 06/21 and 06/22/2011	



	Submittal		EPA Comments
Deliverable ¹	Deadline ²	Status/ Comments	Target Date
EPA Directed Draft Feasibility Study (FS) Key Work Product	01/15/2012	Submitted 01/16/2012	NA
Draft Feasibility Study (FS) - Electronic Version For Early EPA Team Review	03/20/2012	Submitted 03/20/2012 EPA draft FS Section 1 received 07/08/14 EPA Draft Final FS Section 1 and Appendix A received on 12/18/14 EPA draft FS Section 2 received 2/23/15	6/29/2012
Draft Feasibility Study (FS) - Formal Publically Accessible Submittal	03/30/2012	Submitted 03/30/2012 EPA initial comments received 12/18/2012. EPA draft FS Section 1 received 07/08/14 EPA Draft Final FS Section 1 and Appendix A received on 12/18/14 EPA draft FS Section 2 received 2/23/15	6/29/2012
General Field/Data/RI	Reporting		
Validated Analytical Results	90 days following completion of each sampling activity		
Comprehensive Round 2 Site Characterization Summary and Data Gaps Analysis Report	2/21/2007	Submitted 2/21/2007. EPA comments on Sections 1-9 and Appendices A, B, C, D, F, and G received 1/15/08; comments on Section 10 received 3/20/08; comments on Section 11 received 5/16/08; comments on Appendix E received 8/8/08. This document was never intended to be revised or approved by EPA; comments will be addressed in the Draft RI Report.	
Draft Sediment Mobility Testing Data Report	August 2009	Submitted 8/11/2009	EPA comments not anticipated
Draft Baseline Ecological Risk Assessment Report	Early September 2009	Submitted 9/2/2009 Preliminary EPA comments received 12/23/09. EPA comments received 07/16/2010. EPA benthic approach comments received 09/27/2010.	11/2/2009
Draft Baseline Human Health Risk Assessment Report	Late September 2009	Submitted 9/23/2009 Preliminary EPA comments received 12/23/09. EPA comments received 07/16/2010.	11/23/2009
Draft Remedial Investigation Report	Late October 2009	Submitted 10/27/2009 EPA comments received 07/16/2010	12/27/2009



Deliverable ¹	Submittal Deadline ²	Status/ Comments	EPA Comments Target Date
Benthic Toxicity	Mid	Submitted 11/13/2009	01/13/2009
Reanalysis Technical Memorandum	November 2009	EPA benthic approach comments received 09/27/2010.	
Supporting Electronic	November	Submitted 11/19/2009	01/19/2010
Information for Draft Benthic BERA	2009	Submitted 11/19/2009	01/19/2010
Draft Final BHHRA	5/2/2011	Submitted 05/02/2011; EPA comments received 06/22/2012.	7/2/2011
	5/5/0011	EPA dispute decision received 12/07/12.	0/1/2011
Draft Final BERA	7/5/2011	Submitted 07/01/2011; EPA comments received 07/10/2012. EPA comments received on 12/21/2012. EPA comments received on 01/11/2013	9/1/2011
Human Health and Ecological Risk Management Recommendations	July 2011	Submitted 07/22/2011	9/22/2011
Draft Final Remedial Investigation Report	8/29/2011	Submitted 08/29/2011; EPA comments received on Section 1 and 2, Appendices A and H 11/30/2012 EPA comments received on Section 3 02/21/2013 EPA comments received on Section 4 03/19/2013 EPA comments received on Section 8 04/19/2013 EPA comments received on Section 9 8/16/2013 Revised Redline of EPA comments received on Section 9 9/26/2013 EPA comments received on Section 7 11/05/2013 Additional EPA comments received on Section 7 12/19/2013 EPA comments received on Section 6 05/07/2014 EPA comments received on Section 5 6/11/14 EPA comments received on Section 10 and 11 7/10/2014 EPA comments received on the Executive	10/29/2011
Final BHHRA	3/28/2013	Summary 01/13/2015 Submitted: 02/11/2013 EPA comments received 02/15/2013 EPA conditional approval received on 02/26/2013.	4/8/2013



	Submittal		EPA Comments
Deliverable ¹	Deadline ²	Status/ Comments	Target Date
		Final BHHRA posted and hardcopy	
		submitted 03/25/13.	
		EPA provided final approval of the	
		BHHRA on 04/03/13	
		Final BHHRA errata posted 04/12/13.	
Final BERA	4/1/2013	Submitted: 04/01/2013;	4/15/2013
		EPA comments received 06/07/13;	
		Revised draft submitted to EPA 06/14/13	
		EPA comments received 06/26/13	
		EPA comments received 09/26/13	
		Further revised draft submitted to EPA	
		10/10/13	
		Further revised draft submitted to EPA	
		12/16/13	
		EPA provided final approval of the BERA	
		with the exception of Attachment 1 Part B	
		Communication Log on 12/20/13	
STORMWATER		[a 1	
Stormwater Loading	2/1/2009	Submitted 2/18/2009; EPA comments	
Check-in Materials		received 5/6/2009	
Revised Stormwater	April	Submitted 04/30/2010; EPA comments	6/30/2010
Loading Calculation	2010	received 08/17/2010	
Methods			
Final Stormwater Loading		Submitted 01/31/2011: EPA comments	3/31/2011
Calculation Methods		received 03/02/2011	
		Revised Report Submitted 04/15/2011	
SEDIMENT		G 1 1 15/4/0005 FD 1	
Round 3B Field Sampling		Submitted 5/4/2007; EPA comments	
Plan: Sediment Sampling		received 7/25/07. Superseded by the	
and Benthic Toxicity		11/5/2007 R3B Comprehensive Sediment	
Testing		& Bioassay Testing FSP.	
Upriver and Multnomah		Submitted 5/25/2007; EPA comments	
Channel Sediment		received 10/11/07. Superseded by the	
Evaluation and Field Sampling Plan Technical		11/5/2007 R3B Comprehensive Sediment	
Sampling Plan Technical		& Bioassay Testing FSP.	
Approach		Submitted 5/25/2007: EDA comments	
Draft Round 3B Surface and Core Sediment FSP		Submitted 5/25/2007; EPA comments	
Preliminary Technical		received 8/9/07. Superseded by the 11/5/2007 R3B Comprehensive Sediment	
Memorandum Duat Bound 2B English	August 2007	& Bioassay Testing FSP.	
Draft Round 3B Erosion Core Sediment FSP	August 2007	Submitted 8/29/07; EPA comments received 10/11/07. Superseded by the	
Technical Memorandum		11/5/2007 R3B Comprehensive Sediment	
		& Bioassay Testing FSP.	



	Submittal		EPA Comments
Deliverable ¹	Deadline ²	Status/ Comments	Target Date
Round 3B QAPP	November	Submitted 12/17/2007. Need EPA	8
Addendum 10 for Sediment	2007	approval of this QAPP Addendum.	
Sampling			
Round 3 Sediment Trap		Submitted 06/30/2011	
Deployment Field Report			
FATE & TRANSPORT			
Draft Chemical Fate &	July 2007	Submitted 7/20/2007; EPA comments	
Transport Model		received 10/15/07. LWG response to	
Development and Data		comments submitted 1/8/2008.	
Gaps Identification Report			
F&T Surface Sediment	December	Submitted 12/10/2007; EPA comments	
FSP – Addendum to 3B	2007	received 1/2/08. 1/16/08 LWG agreed	
Sediment FSP		with EPA not to perform the sampling.	
		Need EPA agreement that this deliverable	
		is no longer needed.	
Draft Bioaccumulation		Submitted 7/27/2009	
Modeling Report			
CULTURAL RESOURCES			I - // // /
Draft Cultural Resource	12/16/2005	Submitted 12/16/2005	2/14/2006; EPA
Survey Report			comments not time-
			critical at this point
PIOLOGICAL ACCECCAL	DA IOD		in the project
BIOLOGICAL ASSESSMI		G 1 '44 1 02 /20 /2012	(/20/2012
Preliminary Draft Site-	3/30/2012	Submitted 03/20/2012	6/29/2012
Wide Biological Assessment - Electronic			
Version For Early EPA			
Team Review			
Preliminary Draft Site-	3/30/2012	Submitted 03/30/2012	6/29/2012
Wide Biological	3/30/2012	Submitted 03/30/2012	0/29/2012
Assessment - Formal			
Publically Accessible			
Submittal			
Suchreture			

Notes:

- ¹ Bolded Deliverables are primary deliverables per Section XIX, Paragraph 4 of ASOC (EPA 2001a). Unbolded Deliverables are secondary deliverables per Section XIX, Paragraph 5 of ASOC. *Italicized Deliverables* do not have stipulated penalty amounts.
- ² Listed Submittal Deadlines are for draft documents. Unless otherwise specified, all final documents are due to EPA 30 days following receipt of comments from EPA.

Only deliverables due within the next four months are shown.

Deliverable completed and approved by EPA.

Deliverable submitted to EPA and its partners.

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